

RIVERS AND FLOODS, OCTOBER, 1919.

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[Dated: Weather Bureau, Washington, Nov. 28, 1919.]

Precipitation during October was heavy to excessive over a very considerable area, viz, from northeast Texas to the upper Ohio Valley. (See Chart V.) In parts of this region the rains were frequent as well as heavy and notwithstanding the large absorption by the soil at this time of the year the run-off was heavy resulting in floods of exceptional magnitude for the month in the Ouichita and Red Rivers, particularly the first-named where the flood exceeded the previous high water for October at Camden, Ark., by 10 feet. The floods on both rivers were rather long drawn out by reason of the duration of the rains. Warnings were issued well in advance and revised daily as required by the continued rains. Floods of lesser magnitude occurred in the Osage, Gasconade and Meramec of Missouri, the Wabash and White of Indiana, and freshet stages occurred generally in the tributaries of the Ohio.

As a consequence of these floods the lower Mississippi during the next month or so will carry more water than is usual in the late autumn. If the discharge during November and December should continue abnormally high, the lower river will be in a favorable condition for a spring flood in 1920 should precipitation also be favorable. It is perhaps worthy of note that there has been no flood of consequence in the lower Mississippi since 1916.

Moderate floods also occurred in the Guadalupe, Colorado, Brazos, Trinity, and Sabine Rivers of Texas.

In the Missouri below the mouth of the Osage and in the Mississippi below the mouth of the Missouri both streams rose very suddenly, the 24-hour rise in the former being 9.8 feet at Hermann on the 28th, and 10.7 feet at St. Louis on the 29th.

The advices as to floods issued by the Weather Bureau officials in the flooded districts were timely and of great material benefit to all persons residing in the lowlands affected.

LOSS BY FLOODS.

Owing to the fact that the floods came so early in the year, the scarcity of farm labor and other causes which conspired to prevent gathering of crops already matured, the loss was unusually heavy considering the magnitude of the floods. The crops to suffer most were cotton in northeast Texas and adjoining territory. The rainy weather prevented picking and decreased production, and also caused a deterioration in grade of the cotton already in bloom. In Lamar County, Tex., it is estimated that the loss will be from 8,000 to 10,000 bales. The loss to the corn crop by reason of the much greater area flooded was perhaps the greatest that crop has suffered in many years. A very large acreage of corn in the bottom lands along the Ohio and its tributaries in Ohio, Indiana, Kentucky, Illinois; also along the streams of Missouri, Arkansas, Texas and Louisiana, suffered partial or total loss. In Missouri the rather unusual spectacle was afforded of salvaging corn which was lodged as driftwood along the rivers. The money value of the crops so lost and damaged can not of course be accurately known short of a census of the flooded districts, but it can not fall far short of several million dollars. The table below contains estimates for only a part of the flooded districts.

Flclood losses, October, 1919 (incomplete).

District or river.	Tangible property, bridges, high ways, etc.	Crops, corn, cotton, and hay.	Live stock.	Value of warnings.
Ouichita.....	\$25,000	\$1,719,000	\$25,000	.....
Upper Trinity.....	15,000	.....	.....	\$50,000
Petit Jean, Ark.....	.....	15,000	.....	.....
Guadalupe.....	.....	10,000	2,000	.....
Colorado.....	.....	.....	.....	25,000
Brazos.....	.....	50,000	.....	.....
Wabash.....	600	40,000	1,000	200,000
	40,600	1,834,000	28,000	275,000

TABLE I.—Flood stages in the Mississippi drainage during month of October, 1919.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
	<i>Fect.</i>			<i>Fect.</i>	
Seloto:	11	29	29	11.0	29
La Rue, Ohio.....					
Wabash:	15	29	(1)	16.7	31
Mount Carmel, Ill.....					
Osage:	22	28	(1)	28.5	29
Warsaw, Mo.....	25	28	(1)	33.8	30
Tusculum, Mo.....					
Meramec:	12	27	28	16.5	28
Steelville, Mo.....	11	27	(1)	23.4	29
P. effe, Mo.....	15	28	(1)	26.5	30
Glencoe, Mo.....	14	27	(1)	30.7	30
Valley Park, Mo.....					
Bourbon:	10	28	(1)	19.2	30
Union, Mo.....					
Ouichita:	18	12	12	20.5	12
Arkadelphia, Ark.....	18	23	23	19.3	23
Do.....	30	15	(1)	37.0	17
Camden, Ark.....					
Petit Jean:	20	12	13	21.5	13
Danville, Ark.....					
Red:	28	14	17	29.4	16
Fulton, Ark.....	28	24	27	29.3	26
Do.....	29	27	(1)	29.5	29,30
Springbank, Ark.....					
Sulphur:	24	13	(1)	28.6	27
Finley, Tex.....	20	10	17	24.0	12,13
Ringo Crossing, Tex.....	20	22	23	25.7	24
Do.....					
Cypress:	18	15	19	22.2	16
Jackson, Tex.....	18	28	30	19.5	28
Do.....					
Trinity:	25	9	13	30.4	11
Dallas, Tex.....	25	18	18	27.8	18
Do.....	25	22	28	36.9	24
Do.....	28	14	(1)	38.0	31
Trinidad, Tex.....	25	22	(1)	27.3	31
Liberty, Tex.....					
Sabine:	25	23	(1)	32.7	28
Logansport, La.....					
Brazos:	27	23	23	28.0	23
Waco, Tex.....	45	25	26	45.8	25
Washington, Tex.....					
Colorado:	28	12	18	34.8	14
Columbus, Tex.....					
Guadalupe:	22	12	22	34.1	18
Gonzales, Tex.....	16	8	28	25.1	21
Victoria, Tex.....					

1 Continued into November.

MEAN LAKE LEVELS DURING OCTOBER, 1919.

By UNITED STATES LAKE SURVEY.

[Dated: Detroit, Mich., November 4, 1919.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes. ¹			
	Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during October, 1919:	<i>Fect.</i>	<i>Fect.</i>	<i>Fect.</i>	<i>Fect.</i>
Above mean sea level at New York.....	602.47	580.63	572.50	246.35
Above or below—				
Mean stage of September, 1919.....	—0.08	—0.18	—0.25	—0.51
Mean stage of October, 1918.....	+0.04	—0.54	+0.20	+0.35
Average stage for October, last 10 years.....	—0.15	+0.19	+0.42	+0.57
Highest recorded October stage.....	—1.09	—2.31	—1.20	—1.46
Lowest recorded October stage.....	+0.89	+1.03	+1.70	+2.68
Average relation of the October level to—				
September level.....	.....	—0.3	—0.3	—0.4
November level.....	.....	+0.2	+0.3	+0.2

1 Lake St. Clair's level: In October, 575.39 feet.